# Claims

[c1]  What is claimed is:

1. A network system comprising:

a first network device having a first MAC address;

a second network device having a second MAC address for transmitting a data to the first network device;

a first IP-based device having a first IP address and being connected to the first network device for transmitting the data to the first network device through the first MAC address;

a second IP-based device having a second IP address and being connected to the second network device for receiving the data outputted from the second network device through the second MAC address; and

a host having a predetermined IP address and being connected to the first IP-based device and the second IP-based device through the predetermined IP address, the first IP address, and the second IP address, the host comprising a look-up table for recording the first MAC address mapping to the first IP address;

wherein the second IP-based device checks the look-up table for directing the data to the first IP-based device.

[c2]    2. The network system of claim 1 wherein when the second network device transmits the data to the first network device, the second network device encloses the data with the first MAC address and the second MAC address in a first packet to transmit to the second IP-based device, the second IP-based device encloses the first packet with the first IP address and the second IP address in a second packet to transmit to the first IP-based device, the first IP-based device removes the first IP address and the second IP address from the second packet to form a third packet and transmits the third packet to the first network device, and the first network device extracts the data from the third packet.

[c3]    3. The network system of claim 1 wherein the first and the second IP addresses are allocated by the host.

[c4]    4. The network system of claim 1 wherein the first IP-based device comprises a first routing table for recording the first MAC address, and the second IP-based device comprises a second routing table for recording the second MAC address.

[c5]    5. The network system of claim 1 wherein the host is a PBX host, and the first and the second network devices are PBX extensions.

[c6] 6. A connecting method of a network system comprising:

providing a first network device with a first MAC address;

providing a second network device with a second MAC address for transmitting a data to the first network device;

providing a first IP-based device with a first IP address for transmitting the data to the first network device through the first MAC address;

providing a second IP-based device with a second IP address for receiving the data outputted from the second network device through the second MAC address;

providing a host with a predetermined IP address and connecting the host to the first IP-based device and the second IP-based device through the predetermined IP address, the first IP address, and the second IP address; and

recording the first MAC address mapping to the first IP address in the host for directing the data to the first IP-based device.

[c7] 7. The connecting method of claim 1 wherein when the second network device transmits the data to the first network device, the second network device encloses the data with the first MAC address and the second MAC address in a first packet to transmit to the second IP-based device, the second IP-based device encloses the first

packet with the first IP address and the second IP address in a second packet to transmit to the first IP-based device, the first IP-based device removes the first IP address and the second IP address from the second packet to form a third packet and transmits the third packet to the first network device, and the first network device extracts the data from the third packet.

[c8]    8. The connecting method of claim 6 further comprising utilizing the host for allocating the first and the second IP addresses.

[c9]    9. The connecting method of claim 6 further comprising utilizing the first IP-based device for recording the first MAC address, and utilizing the second IP-based device for recording the second MAC address.